[008] From the German patent application DE 100 34 9[[6]]59 A1 of the applicant is known a proportional pressure control valve having a valve part with inlet and outlet openings and at least one closing mechanism for controlling an opening, as well as a magnetic part with a magnetic core, a magnetic coil, and a magnetic anchor arranged to be displaceable. The anchor coacts herein with an actuating element that actuates the spherical closing mechanism. In addition, the hydraulically acting cross section of the opening is determined essentially by the opening length, the opening diameter, and the diameter of the part of the actuating element that penetrates into the opening, wherein the ratio of opening length to opening diameter is less than 2.0.

1-7. (CANCELED)

8. (CURRENTLY AMENDED) A proportional pressure control valve (1), for controlling a pressure level in a hydraulic circuit, ~~especially in the hydraulic circuit of a gearbox of a motor vehicle, having~~ comprising:

a push rod (5) ~~as connection~~ connected between a control element (13), arranged in the hydraulic circuit, and a proportional magnet, located in [[the]] a housing (10)~~, which~~ the proportional magnet comprises a magnetic core (2), a magnetic anchor (3), and a magnetic coil (4)~~, while~~;

wherein the magnetic coil (4) and the magnetic core (2) are securely connected to the housing (10)[[,]]; [[and]]

the magnetic anchor (3) includes a first part securely connected with an axial anchor rod (6);

the push rod (5) couples the first part of the magnetic anchor (3) to the control element (13);

the magnetic ~~anchor~~ core (2) has a magnetic control edge (12) and the first part of the magnetic anchor (3) ~~can be moved~~ is axially movable back and forth ~~axially~~ relative to the magnetic core (2) between [[two]] opposed first and second end positions by ~~means of a~~ magnetic force~~, which has as a consequence an~~ for controlling actuation of the control element (13)[[,]]~~and whereupon a greatest possible,~~

a width of a magnetically acting gap (11), [[can be]] formed between front faces of the magnetic core (2) and the first part of the magnetic anchor (3), is adjusted to a maximum possible value by movement of the first part of the magnetic anchor (3), via the magnetic force, toward the second end position; and

~~wherein at least one~~ a second part of the magnetic anchor ([[3,]] 3") is arranged to be movable relative to [[an]] the anchor rod (6) in dependence upon the magnetic [[flow,]] force so that one of a first gap (14), which is enlarged with respect to the magnetically acting gap (11), [[and/or]] and an additional second gap (8) is produced.

9. (CURRENTLY AMENDED) ~~The proportional pressure control valve (1) of claim 8, wherein the magnetic anchor (3) is arranged to be displaceable in dependence upon the magnetic flow along the anchor rod (6), so that the second gap (8) can be adjusted between the anchor halves (3', 3") and/or the first gap (14) can be adjusted~~

~~between the magnetic anchor (3) and the magnetic core (2)~~ A proportional pressure control valve (1), for controlling a pressure level in a hydraulic circuit, comprising:

a control element (13) arranged in the hydraulic circuit;

a proportional magnet located in a housing (10), the proportional magnet including a magnetic core (2), a magnetic anchor (3), and a magnetic coil (4);

wherein the magnetic coil (4) and the magnetic core (2) are securely connected to the housing (10);

the magnetic anchor (3) is located coaxially within the magnetic coil (4) and includes a first part securely connected to an axial anchor rod (6);

the magnetic core (2) is located adjacent the magnetic coil (4) and includes a magnetic control edge (12) located adjacent an end of the first part of the magnetic anchor (3);

a magnetically acting gap (11) is formed between the magnetic core (2) and the first part of the magnetic anchor (3);

the first part of the magnetic anchor (3) is axially movable with the anchor rod (6) between a first end position, located adjacent the magnetic core (2), and a second end position, spaced from the magnetic core (2), by a magnetic force generated by the magnetic coil (4); and

the first part of the magnetic anchor (3) is coupled to the control element (13) by a push rod (5); whereby

the control element (13) is actuated by movement of the first part of the magnetic anchor (3) due to the magnetic force; and

a width of the magnetically acting gap, between the magnetic core (2) and the first part of the magnetic anchor (3), is adjusted to a maximum possible value by movement of the first part of the magnetic anchor (3) toward the second end position;

the magnetic anchor (3) further includes a second part that axially displaceable along the axial anchor rod (6); and

a width of a second gap (8), formed between the first and second parts of the magnetic anchor (3), is adjustable against a force of one of an elastic element [[or]] and a spring (7) ~~in dependence upon magnetic flow~~ by movement of the second part of the magnetic anchor (3) along the anchor rod (6) due to the magnetic force.

10. (PREVIOUSLY PRESENTED) The proportional pressure control valve (1) of claim 9, wherein the spring (7) is supported on an anchor rod collar (9).

11. (CURRENTLY AMENDED) The proportional pressure control valve (1) of claim 8, wherein the ~~magnetic anchor (3) comprises at least two parts (3', 3"), wherein a first part (3') is securely connected to the anchor rod (6), and a~~ second part (3") is arranged so as to be axially displaceable [[on]] along the anchor rod (6)[[,]] so that the second gap (8) is produced between the first and second parts (3', 3") of the magnetic anchor (3), ~~which can be~~ and a width of the second gap (8) is adjusted against [[the]] a force of an elastic element or a spring (7), located between the first and second parts (3', 3") of the magnetic anchor (3), ~~in dependence~~ depending upon the magnetic flow.

12. (CURRENTLY AMENDED) The proportional pressure control valve (1) of claim 8, wherein the P/I-curve of the proportional pressure control valve (1) has a ~~progressive~~ gradient which varies with current strength of the proportional magnet.

13. (CURRENTLY AMENDED) ~~The proportional pressure control valve (1) of claim 12, wherein~~ A proportional pressure control valve (1), for controlling a pressure level in a hydraulic circuit, comprising:

a push rod (5) connected between a control element (13), arranged in the hydraulic circuit, and a proportional magnet, located in a housing (10); and the proportional magnet comprises a magnetic core (2), a magnetic anchor (3), and a magnetic coil (4);

wherein the magnetic coil (4) and the magnetic core (2) are securely connected to the housing (10);

the magnetic anchor (3) includes a first part securely connected with an axial anchor rod (6);

the push rod (5) couples the first part of the magnetic anchor (3) to the control element (13);

the magnetic core (2) has a magnetic control edge (12) and the first part of the magnetic anchor (3) is axially movable back and forth relative to the magnetic core (2) between first and second end positions by magnetic force for controlling actuation of the control element (13);

a width of a magnetically acting gap (11), formed between front faces of the magnetic core (2) and the first part of the magnetic anchor (3), is adjusted to a maximum possible value by movement of the first part of the magnetic anchor (3), via the magnetic force, toward the second end position; and

a second part of the magnetic anchor (3") is arranged to be movable relative to the anchor rod (6) in dependence upon the magnetic force so that one of a first gap (14), which is enlarged with respect to the magnetically acting gap (11), and an additional second gap (8) is produced; and

the gradient of the P/I-curve has a very flat rising gradient within a low current range and a steep rising gradient within a range having mid to high current strength.

14. (CURRENTLY AMENDED) The proportional pressure control valve (1) of claim 13, wherein the steep rising gradient of the P/I-curve in a first half of an overall current interval amounts to ~~approx.~~ approximately 4.0 bar/A and in a second half the overall current interval amounts [[to]] approximately up to 16 bar/A.